March Monthly Educational Module "The Forecasters behind the Forecasts"

Day 1

It's time to highlight the forecasters behind the forecasts! That's right; we are going to be highlighting the LMRFC forecasters. But, before we start, we must cover a little background information on the LMRFC staffing. Check out the graphic below to learn more about the LMRFC staff in general.

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- RFCs hire forecasters from a wide variety of backgrounds.
- The LMRFC has meteorologists, hydrologists, civil engineers, and geologists
- The LMRFC staffing includes:
 - 1 Hydrologist-in-Charge (HIC)
 - 1 Development Operational Hydrologist (DOH)
 - 1 Service Coordination Hydrologist (SCH)
 - 3 Hydrometeorologists HAS Forecasters
 - 9 Hydrologists
 - 1 Administrative Support Assistant (ASA)



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Our first forecaster is Jessica Smith. Jessica holds the position of Senior HAS Forecaster at the Lower Mississippi River Forecast Center (LMRFC). Each River Forecast Center (RFC) has three forecasters in the Hydrometeorological Analysis and Support (HAS) unit.

The HAS forecasters are responsible for analyzing and quality-controlling large amounts of real-time radar and gauge data. They also evaluate weather model data and create quantitative precipitation forecasts (QPF). These data are critical inputs to the hydrologic models used in the production of river forecast products. To learn more about Jessica Smith and her role at the LMRFC, check out the graphic below. Thank you, Jessica, for your hard work and for being a critical member of the LMRFC team!

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Jessica graduated with a Bachelor of Science in Meteorology from University of Louisiana at Monroe and a Master of Science in Meteorology from Florida State University. Jessica joined the LMRFC staff in August 2008, and currently holds the position of Senior HAS Forecaster.

Prior to joining the LMRFC team, Jessica was a Student Career Experience Program student at the Lake Charles Weather Forecast Office, a Meteorologist Intern at the Birmingham Weather Forecast Office, and a Meteorologist General Forecaster at the New Orleans/Baton Rouge Weather Forecast Office.

Jessica is the currently the focal point for all HAS operations, precipitation data processing and requests, storm surge, and personnel support activities.

In her spare time, Jessica enjoys working her second full-time job of being a mommy to three beautiful girls.



Jessica Smith



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Let's highlight another one of the Lower Mississippi River Forecast Center's HAS forecasters, Katie Landry! Katie is our newest member to the LMRFC; however, in her short time, she has proven to be a critical member of the LMRFC team. To learn more about Katie, check out the graphic below. Thank you, Katie, for your hard work and dedication!

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Katie earned a Bachelor of Science in Geosciences with an emphasis in Operational Meteorology from Mississippi State University in 2012.

Prior to graduation, Katie served as an intern for the Northern Gulf Institute in 2011 and a Student Career Experience Program intern for the New Orleans/Baton Rouge Weather Forecast Office from 2011 to 2012. Katie became a member of the LMRFC team in 2012 and is currently a HAS Forecaster.

Katie is the Focal Point for the Graphical Forecast Editor program, Social Media, Climatology, Radar, and the Pascagoula and French Broad basins.

In her spare time, Katie enjoys going to Pure Barre, attending sporting events, and spreading ALS Awareness. Katie is also serving as the local Mississippi State University Alumni Chapter President.

Katie Landry







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Next up, we are switching forecaster units to cover our hydrologists. The number of hydrologists for each River Forecast Center varies; but, at the Lower Mississippi River Forecast Center, we have nine hydrologists: five Journey Hydrologists and four Senior Hydrologists.

The role of a hydrologist is to apply hydrologic science and local expertise to analyze hydrologic model output and real-time data to create river forecasts for the LMRFC area. They also maintain hydrologic and hydraulic models and historical databases for operational and development usage.

First, we would like to highlight one of our Senior Hydrologists, Gina Tillis-Nash! To learn more about Gina and her expertise, check the graphic below. Thank you, Gina, for your hard work and leadership at the LMRFC!

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Gina is a licensed professional engineer who attended the University of Florida where she earned a Master of Engineering in Environmental Engineering, specializing in Surface Water Hydrology and Wetlands, and a MBA specializing in e-Technology.

Gina has been with the LMRFC since 2002 and is currently a Senior Hydrologist with focal point duties on calibration, historical climatology, ensemble stream flow prediction, diversity, and team building. She is also responsible for the Yazoo, Big Black, and Homochitto River Basins.

Gina's prior jobs include the USGS, where she managed and supervised numerous projects, and KBN Engineering, where she specialized in technical report writing and biologic, hydrologic, and hydraulic data analysis for Environmental Impact Statements, Environmental Assessments, and Ecological Risk Assessments.

In her spare time, Gina likes to entertain her children with little tricks like writing upside-down, backwards, and in cursive, as well as participating in outreach events that encourage kids to pursue career paths in hydrology and hydraulics.

Gina Tillis-Nash









<u>Day 5</u>

Now, let's cover one of our Journey Hydrologists, Scott Lincoln! To learn more about Scott and how he plays a role in the LMRFC team, check out the graphic below. Thank you, Scott, for your hard work and dedication!

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Scott attended Iowa State University and received a Bachelor of Science degree in Environmental Science, as well as a Minor in Meteorology. He also earned a Master of Science degree in Environmental Science and received a certificate in Geographic Information Systems.

Scott began his career with the LMRFC in 2010 and currently holds the position of Hydrologist.

Scott serves the LMRFC as an avid hydrologist and cartographer. His focal point duties include, but not limited to, Geographic Information Systems and flash flooding. He is also responsible for the Clinch, Powell, Duck, and Elk river basins, as well as other numerous headwater rivers that flow into the Tennessee River.

In his spare time, Scott likes to spend time with his pets and watch nerdy television shows.

Scott Lincoln





pets and watermerdy television shows.



We are going to continue highlighting our hydrologists with another one of our Senior Hydrologists, Amanda Roberts. Check out the graphic below to learn more about Amanda and how she plays a role at the LMRFC. Thank you, Amanda, for your hard work and for being a critical member of the LMRFC team!

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Amanda attended the University of North Alabama where she earned a Bachelor of Science in Geology and a Minor in Mathematics. Amanda continued her education at the University of Southern Mississippi where she received a Master of Science in Geology with a specialization in Hydrology and Geomorphology.

Amanda has been employed by the LMRFC for approximately 14 years and has served as a Senior Hydrologist for 9 of those years. Her focal point areas include rating curves, the hydrodatabase, and the Pearl River.

In her spare time, Amanda enjoys teaching courses in geology at several local colleges, as well as serving as founder/director of a local animal rescue organization.

Amanda Roberts







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Now that we have covered some of our hydrologists and HAS forecasters, it's time to switch roles and finish off our module by covering our managers! First up is our Development and Operations Hydrologist, David Welch. To learn more about David and his role at the Lower Mississippi River Forecast Center, check out the graphic below. Thank you, David, for your hard work, leadership, and dedication to the LMRFC team!

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David Welch attended the University of Texas at Arlington, where he earned a Bachelor of Science in Geology. He also received a Master of Science in Geochemistry from New Mexico Institute of Mining and Technology and a Professional GIS Certificate from the University of New Orleans.

David has been with the LMRFC for over 14 years and is currently serving as the Lower Mississippi River Forecast Center's Development and Operations Hydrologist. His main responsibilities include maintaining development work and training for LMRFC operations and staff.

Prior to assuming the role of Development and Operations Hydrologist, David was a Hydrologist and Senior Hydrologist for the LMRFC.

David Welch







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Another one of the Lower Mississippi River Forecast Center's managers is Jeffrey Graschel. Jeff serves the LMRFC as the Service Coordination Hydrologist. Check out the graphic below to learn more about Jeff and how he plays a role at the LMRFC. Thank you, Jeff, for your dedication and leadership of the LMRFC team!

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Jeff attended the Northeast Louisiana University (Changed in 1999 to University of Louisiana at Monroe) and received a Bachelor of Science in Atmospheric Sciences in 1988.

Jeff started working for the National Weather Service as an intern at the New Orleans Weather Forecast Office. After his time as an intern, Jeff began working with the LMRFC. In that time, he has held positions as a hydrologist and Senior HAS forecaster.

Now, Jeff currently holds the position of Service Coordination Hydrologist (SCH). The SCH is responsible for coordinating with partners and other users to make them aware of the National Weather Service's hydrologic capabilities, as well as understand their needs and provide technical guidance. Jeff has been working with the National Weather Service for a total of 22 years!

Jeff says he is proud to work for the NWS and enjoys being able to provide forecasts/warnings that help customers/partners make critical decisions for the protection of life and property.

Jeffrey Graschel







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Last, but certainly not least, the Lower Mississippi River Forecaster Center would like highlight Dr. Suzanne Van Cooten, the LMRFC's Hydrologist-in-Charge! To some people, she is referred to as Dr. Van Cooten. To others, she is known as Suzanne. But, to the LMRFC staff, she is Dr. Boss Lady! Yes, Suzanne is our extremely talented and brilliant boss; and her experience, knowledge and leadership are critical assets to the LMRFC team. If would like to learn more about, Suzanne, a.k.a. Dr. Boss Lady, check out the graphic below. Thank you, Suzanne, for all that you do for the LMRFC staff!

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Dr. Suzanne Van Cooten is the Hydrologist-in-Charge (HIC) of the National Weather Service Lower Mississippi River Forecast Center (LMRFC). Prior to assuming leadership of the LMRFC in 2011, she was the Deputy Chief of the Warning Research Development Division (WRDD) at NOAA's National Severe Storms Laboratory (NSSL) in Norman, Oklahoma. During her tenure at NSSL, Dr. Van Cooten also accepted a two-year Intergovernmental Personnel Act (IPA) assignment to serve as the National Sea Grant Weather and Climate Extension Specialist at the University of Oklahoma (OU).

In addition to these roles during her 23 years as a NOAA employee, she has been an operational weather forecaster for NWS offices in Fort Worth and New Orleans/Baton Rouge, a Hydrometeorological Analysis and Support (HAS) forecaster and hydrologist at LMRFC, and a regional and national NWS program manager in observing systems at NWS Southern Region HQ. She also served as Chief Scientist at the NWS National Data Buoy Center (NDBC), where she was awarded a Department of Commerce (DOC) Bronze Medal for leading the design and deployment of ocean buoys in NOAA's coastal storms program.

Dr. Van Cooten received a B.S. in Meteorology from the University of Oklahoma, a M.S. in Civil and Environmental Engineering from the University of New Orleans-LSU, and completed her Ph.D. in Engineering and Applied Sciences also from the University of New Orleans-LSU. She has served as a supervisor for graduate research and outside committee member for M.S. and Ph.D. candidates in meteorology and engineering at OU.

Suzanne Van Cooten





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The Lower Mississippi River Forecast Center would like to give a BIG shout out to all of our forecasters and say THANK YOU! Check out the graphic below to see our forecasters hard at work.

We hope you all enjoyed learning a little more about the forecasters behind the forecasts.

